

IN THE CLAIMS:

The following is a listing of all pending and cancelled claims in this application. This listing replaces any prior listing.

Claims 1-18 (Canceled).

19. (Currently amended) A ~~substance~~ composition comprising a carbon nanotube, an enzyme co-factor ~~electrochemiluminescence co-reactant~~ attached to the outer surface of said carbon nanotube, and an electrochemiluminescent label attached to the outer surface of said carbon nanotube, wherein said enzyme co-factor is selected from the group consisting of NADH, NADPH, NAD⁺, NADP⁺ and a derivative thereof.
20. (Currently amended) The ~~substance~~ composition of claim 19, wherein said electrochemiluminescent label comprises a metal atom.
21. (Currently amended) The ~~substance~~ composition of claim 20, wherein said metal is Ru, Os or Re.
22. (Currently amended) The ~~substance~~ composition of claim 20, wherein said metal is Ru.
23. (Currently amended) The ~~substance~~ composition of claim 19, wherein said electrochemiluminescent label is Ru(bpy)₃²⁺.
24. (Cancelled).

25. (Currently amended) The ~~substance~~ composition of claim 19, wherein said electrochemiluminescent label is attached to said the outer surface of said carbon nanotube via a functional group.

26. (Currently amended) The ~~substance~~ composition of claim 19, wherein said enzyme cofactor electrochemiluminescence co-reactant is attached to said the outer surface of said carbon nanotube via a functional group.

27. (Currently amended) The ~~substance~~ composition of claim 25, wherein said functional group is COOH.

28. (Currently amended) An assay A composition comprising (i) the ~~substance~~ composition of claim 19 and (ii) an enzyme and/or a enzyme substrate.

29. (Currently amended) A kit comprising, in one or more containers, (i) the ~~substance~~ composition of claim 19 and (ii) an enzyme and/or a enzyme substrate.

30. (Currently amended) The assay composition of claim 28, wherein said composition comprises said enzyme and said enzyme is dehydrogenase.

31. (Currently amended) The assay composition of claim 30, wherein said dehydrogenase is glucose dehydrogenase.

32. (Currently amended) The kit of claim 29, wherein said assay composition comprises said enzyme and said enzyme is dehydrogenase.

33. (Currently amended) The assay composition of claim 30, wherein said assay composition comprises said ~~substance~~ composition and said substrate is a substrate of dehydrogenase.

34. (Currently amended) An assay A composition comprising (i) the ~~substance~~ composition of claim 19, (ii) an enzyme and (ii) a substrate to said enzyme.

35. (Cancelled).

36. (Currently amended) The assay composition of claim 34, wherein said ~~electrochemiluminescence co-reactant is NADH, NADPH, NAD⁺ or a derivative thereof,~~ said enzyme is dehydrogenase and said substrate is a substrate of dehydrogenase.

37. (Currently amended) A method for detecting the presence or amount of analyte in a sample comprising:

(a) contacting said sample with an assay composition containing the ~~substance~~ composition of claim 19, wherein the presence of an analyte of interest causes oxidation or reduction of said enzyme co-factor; and

(b) detecting or measuring electrochemiluminescence emitted from said electrochemiluminescent label;

(c) correlating said electrochemiluminescence to the presence or amount of analyte in a sample.

38. (Currently amended) The method of claim 37, wherein said analyte is an enzyme and said assay composition further comprises a substrate of said enzyme or said analyte is an enzyme substrate and said composition further comprises an enzyme for said enzyme substrate.

39 - 41 (Cancelled).